

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/S72,348 A
Source: IFWO
Date Processed by STIC: 4/16/07

ENTERED



IFWO

RAW SEQUENCE LISTING

DATE: 04/16/2007

PATENT APPLICATION: US/10/572,348A

TIME: 12:23:17

Input Set : A:\revised sequence listing.txt

Output Set: N:\CRF4\04162007\J572348A.raw

5 <110> APPLICANT: Novo Nordisk A/S
 9 <120> TITLE OF INVENTION: Novel GLP-1 derivatives
 13 <130> FILE REFERENCE: 6692-WO
 C--> 17 <140> CURRENT APPLICATION NUMBER: US/10/572,348A
 C--> 17 <141> CURRENT FILING DATE: 2006-03-17
 17 <160> NUMBER OF SEQ ID NOS: 5
 21 <170> SOFTWARE: PatentIn version 3.1
 25 <210> SEQ ID NO: 1
 27 <211> LENGTH: 31
 29 <212> TYPE: PRT
 31 <213> ORGANISM: Homo sapiens
 35 <400> SEQUENCE: 1
 37 His Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 38 1 5 10 15
 41 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Gly Arg Gly
 42 20 25 30
 45 <210> SEQ ID NO: 2
 47 <211> LENGTH: 40
 49 <212> TYPE: PRT
 51 <213> ORGANISM: Artificial
 53 <220> FEATURE:
 54 <223> OTHER INFORMATION: Synthetic
 58 <220> FEATURE:
 60 <221> NAME/KEY: MISC_FEATURE
 62 <222> LOCATION: (1)..(1)
 64 <223> OTHER INFORMATION: Xaa at position 1 is L-histidine, D-histidine, desamino-histidine
 65 , 2-amino-histidine, beta-hydroxy-histidine, homohistidine, N-alp
 66 ha-acetyl-histidine, alpha-fluoromethyl-histidine, alpha-methyl-h
 67 istidine, 3-pyridylalanine, 2-pyridylalanine, or 4-pyridylalanine
 W--> 68 .
 72 <220> FEATURE:
 74 <221> NAME/KEY: MISC_FEATURE
 76 <222> LOCATION: (2)..(2)
 78 <223> OTHER INFORMATION: Xaa at position 2 is Ala, Gly, Val, Leu, Ile, Lys, Aib, (1-aminoc
 79 yclopropyl) carboxylic acid, (1-aminocyclobutyl) carboxylic acid,
 80 (1-aminocyclopentyl) carboxylic acid, (1-aminocyclohexyl) carboxy
 81 lic acid, (1-aminocycloheptyl) carboxylic acid or (1-aminocyclooc
 W--> 82 tyl) carboxylic acid.
 86 <220> FEATURE:
 88 <221> NAME/KEY: MISC_FEATURE
 90 <222> LOCATION: (10)..(10)
 92 <223> OTHER INFORMATION: Xaa at position 10 is Val or Leu.

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96 <220> FEATURE:

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98 <221> NAME/KEY: MISC_FEATURE
100 <222> LOCATION: (12)..(12)
102 <223> OTHER INFORMATION: Xaa at position 12 is Ser, Lys or Arg.
106 <220> FEATURE:
108 <221> NAME/KEY: MISC_FEATURE
110 <222> LOCATION: (13)..(13)
112 <223> OTHER INFORMATION: Xaa at position 13 is Tyr or Gln.
116 <220> FEATURE:
118 <221> NAME/KEY: MISC_FEATURE
120 <222> LOCATION: (14)..(14)
122 <223> OTHER INFORMATION: Xaa at position 14 is Leu or Met.
126 <220> FEATURE:
128 <221> NAME/KEY: MISC_FEATURE
130 <222> LOCATION: (16)..(16)
132 <223> OTHER INFORMATION: Xaa at position 16 is Gly, Glu or Aib.
136 <220> FEATURE:
138 <221> NAME/KEY: MISC_FEATURE
140 <222> LOCATION: (17)..(17)
142 <223> OTHER INFORMATION: Xaa at position 17 is Gln, Glu, Lys or Arg.
146 <220> FEATURE:
148 <221> NAME/KEY: MISC_FEATURE
150 <222> LOCATION: (19)..(19)
152 <223> OTHER INFORMATION: Xaa at position 19 is Ala or Val.
156 <220> FEATURE:
158 <221> NAME/KEY: MISC_FEATURE
160 <222> LOCATION: (20)..(20)
162 <223> OTHER INFORMATION: Xaa at position 20 is Lys, Glu or Arg.
166 <220> FEATURE:
168 <221> NAME/KEY: MISC_FEATURE
170 <222> LOCATION: (21)..(21)
172 <223> OTHER INFORMATION: Xaa at position 21 is Glu or Leu.
176 <220> FEATURE:
178 <221> NAME/KEY: MISC_FEATURE
180 <222> LOCATION: (24)..(24)
182 <223> OTHER INFORMATION: Xaa at position 24 is Ala, Glu or Arg.
186 <220> FEATURE:
188 <221> NAME/KEY: MISC_FEATURE
190 <222> LOCATION: (27)..(27)
192 <223> OTHER INFORMATION: Xaa at position 27 is Val or Lys.
196 <220> FEATURE:
198 <221> NAME/KEY: MISC_FEATURE
200 <222> LOCATION: (28)..(28)
202 <223> OTHER INFORMATION: Xaa at position 28 is Lys, Glu, Asn or Arg.
206 <220> FEATURE:
208 <221> NAME/KEY: MISC_FEATURE
210 <222> LOCATION: (29)..(29)
212 <223> OTHER INFORMATION: Xaa at position 29 is Gly or Aib.
216 <220> FEATURE:
218 <221> NAME/KEY: MISC_FEATURE

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Input Set : A:\revised sequence listing.txt

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220 <222> LOCATION: (30)..(30)

222 <223> OTHER INFORMATION: Xaa at position 30 is Arg, Gly or Lys.

226 <220> FEATURE:

228 <221> NAME/KEY: MISC_FEATURE

230 <222> LOCATION: (31)..(31)

232 <223> OTHER INFORMATION: Xaa at position 31 is Gly, Ala, Glu, Pro, Lys, amide or is absent

233 .

237 <220> FEATURE:

239 <221> NAME/KEY: MISC_FEATURE

241 <222> LOCATION: (32)..(32)

243 <223> OTHER INFORMATION: Xaa at position 32 is Lys, Ser, amide or is absent.

247 <220> FEATURE:

249 <221> NAME/KEY: MISC_FEATURE

251 <222> LOCATION: (33)..(33)

253 <223> OTHER INFORMATION: Xaa at position 33 is Ser, Lys, amide or is absent.

257 <220> FEATURE:

259 <221> NAME/KEY: MISC_FEATURE

261 <222> LOCATION: (34)..(34)

263 <223> OTHER INFORMATION: Xaa at position 34 is Gly, amide or is absent.

267 <220> FEATURE:

269 <221> NAME/KEY: MISC_FEATURE

271 <222> LOCATION: (35)..(35)

273 <223> OTHER INFORMATION: Xaa at position 35 is Ala, amide or is absent.

277 <220> FEATURE:

279 <221> NAME/KEY: MISC_FEATURE

281 <222> LOCATION: (36)..(36)

283 <223> OTHER INFORMATION: Xaa at position 36 is Pro, amide or is absent.

287 <220> FEATURE:

289 <221> NAME/KEY: MISC_FEATURE

291 <222> LOCATION: (37)..(37)

293 <223> OTHER INFORMATION: Xaa at position 37 is Pro, amide or is absent.

297 <220> FEATURE:

299 <221> NAME/KEY: MISC_FEATURE

301 <222> LOCATION: (38)..(38)

303 <223> OTHER INFORMATION: Xaa at position 38 is Pro, amide or is absent.

307 <220> FEATURE:

309 <221> NAME/KEY: MISC_FEATURE

311 <222> LOCATION: (39)..(39)

313 <223> OTHER INFORMATION: Xaa at position 39 is Ser, amide or is absent.

317 <220> FEATURE:

319 <221> NAME/KEY: MISC_FEATURE

321 <222> LOCATION: (40)..(40)

323 <223> OTHER INFORMATION: Xaa at position 40 is amide or is absent.

327 <400> SEQUENCE: 2

W--> 329 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Xaa Ser Xaa Xaa Xaa Glu Xaa

330 1 5 10 15

333 Xaa Ala Xaa Xaa Xaa Phe Ile Xaa Trp Leu Xaa Xaa Xaa Xaa Xaa Xaa

334 20 25 30

337 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa

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PATENT APPLICATION: US/10/572,348A

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Input Set : A:\revised sequence listing.txt

Output Set: N:\CRF4\04162007\J572348A.raw

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338          35          40
341 <210> SEQ ID NO: 3
343 <211> LENGTH: 32
345 <212> TYPE: PRT
347 <213> ORGANISM: Artificial
349 <220> FEATURE:
350 <223> OTHER INFORMATION: Synthetic
354 <220> FEATURE:
356 <221> NAME/KEY: MISC_FEATURE
358 <222> LOCATION: (1)..(1)
360 <223> OTHER INFORMATION: Xaa at position 1 is L-histidine, D-histidine, desamino-
histidine
361      , 2-amino-histidine, beta-hydroxy-histidine, homohistidine, N-alp
362      ha-acetyl-histidine, alpha-fluoromethyl-histidine, alpha-methyl-h
363      istidine, 3-pyridylalanine, 2-pyridylalanine, or 4-pyridylalanine
W--> 364      .
368 <220> FEATURE:
370 <221> NAME/KEY: MISC_FEATURE
372 <222> LOCATION: (2)..(2)
374 <223> OTHER INFORMATION: Xaa at position 2 is Ala, Gly, Val, Leu, Ile, Lys, Aib, (1-
aminoc
375      yclopropyl) carboxylic acid, (1-aminocyclobutyl) carboxylic acid,
376      (1-aminocyclopentyl) carboxylic acid, (1-aminocyclohexyl) carboxy
377      lic acid, (1-aminocycloheptyl) carboxylic acid or (1-aminocyclooc
W--> 378      tyl) carboxylic acid.
382 <220> FEATURE:
384 <221> NAME/KEY: MISC_FEATURE
386 <222> LOCATION: (12)..(12)
388 <223> OTHER INFORMATION: Xaa at position 12 is Ser, Lys or Arg.
392 <220> FEATURE:
394 <221> NAME/KEY: MISC_FEATURE
396 <222> LOCATION: (16)..(16)
398 <223> OTHER INFORMATION: Xaa at position 16 is Gly, Glu or Aib.
402 <220> FEATURE:
404 <221> NAME/KEY: MISC_FEATURE
406 <222> LOCATION: (17)..(17)
408 <223> OTHER INFORMATION: Xaa at position 17 is Gln, Gly, Lys or Arg.
412 <220> FEATURE:
414 <221> NAME/KEY: MISC_FEATURE
416 <222> LOCATION: (20)..(20)
418 <223> OTHER INFORMATION: Xaa at position 20 is Lys, Glu or Arg.
422 <220> FEATURE:
424 <221> NAME/KEY: MISC_FEATURE
426 <222> LOCATION: (24)..(24)
428 <223> OTHER INFORMATION: Xaa at position 24 is Ala, Glu or Arg.
432 <220> FEATURE:
434 <221> NAME/KEY: MISC_FEATURE
436 <222> LOCATION: (28)..(28)
438 <223> OTHER INFORMATION: Xaa at position 28 is Lys, Glu or Arg.
442 <220> FEATURE:
444 <221> NAME/KEY: MISC_FEATURE

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RAW SEQUENCE LISTING

DATE: 04/16/2007

PATENT APPLICATION: US/10/572,348A

TIME: 12:23:18

Input Set : A:\revised sequence listing.txt

Output Set: N:\CRF4\04162007\J572348A.raw

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446 <222> LOCATION: (29)..(29)
448 <223> OTHER INFORMATION: Xaa at position 29 is Gly or Aib.
452 <220> FEATURE:
454 <221> NAME/KEY: MISC_FEATURE
456 <222> LOCATION: (30)..(30)
458 <223> OTHER INFORMATION: Xaa at position 30 is Arg or Lys..
462 <220> FEATURE:
464 <221> NAME/KEY: MISC_FEATURE
466 <222> LOCATION: (31)..(31)
468 <223> OTHER INFORMATION: Xaa at position 31 is Gly, Ala, Glu or Lys.
472 <220> FEATURE:
474 <221> NAME/KEY: MISC_FEATURE
476 <222> LOCATION: (32)..(32)
478 <223> OTHER INFORMATION: Xaa at position 32 is Lys, amide or is absent.
482 <400> SEQUENCE: 3
W--> 484 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Xaa Tyr Leu Glu Xaa
      485 1          5          10          15
      488 Xaa Ala Ala Xaa Glu Phe Ile Xaa Trp Leu Val Xaa Xaa Xaa Xaa Xaa
      489          20          25          30
492 <210> SEQ ID NO: 4
494 <211> LENGTH: 39
496 <212> TYPE: PRT
498 <213> ORGANISM: Gila monster
502 <220> FEATURE:
504 <221> NAME/KEY: MISC_FEATURE
506 <222> LOCATION: (39)..(39)
508 <223> OTHER INFORMATION: Amidation of carboxy group.
512 <400> SEQUENCE: 4
514 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
515 1          5          10          15
518 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
519          20          25          30
522 Ser Gly Ala Pro Pro Pro Ser
523          35
526 <210> SEQ ID NO: 5
528 <211> LENGTH: 44
530 <212> TYPE: PRT
532 <213> ORGANISM: Artificial
534 <220> FEATURE:
535 <223> OTHER INFORMATION: Synthetic
539 <220> FEATURE:
541 <221> NAME/KEY: MISC_FEATURE
543 <222> LOCATION: (44)..(44)
545 <223> OTHER INFORMATION: Amidation of carboxy group.
549 <400> SEQUENCE: 5
551 His Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Glu Glu
552 1          5          10          15
555 Glu Ala Val Arg Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
556          20          25          30

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RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/572,348A

DATE: 04/16/2007
TIME: 12:23:19

Input Set : A:\revised sequence listing.txt
Output Set: N:\CRF4\04162007\J572348A.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:2; Xaa Pos. 1,2,10,12,13,14,15,17,19,20,21,24,27,28,29,30,31,32,33,34
Seq#:2; Xaa Pos. 35,36,37,38,39,40
Seq#:3; Xaa Pos. 1,2,12,16,17,20,24,28,29,30,31,32

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete,
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:2,3,5

VERIFICATION SUMMARY

DATE: 04/16/2007

PATENT APPLICATION: US/10/572,348A

TIME: 12:23:19

Input Set : A:\revised sequence listing.txt

Output Set: N:\CRF4\04162007\J572348A.raw

L:17 M:270 C: Current Application Number differs, Replaced Current Application No
L:17 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:68 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:82 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:329 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0
M:341 Repeated in SeqNo=2
L:364 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:378 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:484 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
M:341 Repeated in SeqNo=3